

## Subpart O—Documentation, Operating Limitations and Information

### § 36.1501 Procedures, noise levels and other information.

(a) All procedures, weights, configurations, and other information or data employed for obtaining the certified noise levels prescribed by this part, including equivalent procedures used for flight, testing, and analysis, must be developed and approved. Noise levels achieved during type certification must be included in the approved airplane (rotorcraft) flight manual.

(b) Where supplemental test data are approved for modification or extension of an existing flight data base, such as acoustic data from engine static tests used in the certification of acoustical changes, the test procedures, physical configuration, and other information and procedures that are employed for obtaining the supplemental data must be developed and approved.

[Amdt. 36-15, 53 FR 16366, May 6, 1988]

### § 36.1581 Manuals, markings, and placards.

(a) If an Airplane Flight Manual or Rotorcraft Flight Manual is approved, the approved portion of the Airplane Flight Manual or Rotorcraft Flight Manual must contain the following information, in addition to that specified under § 36.1583 of this part. If an Airplane Flight Manual or Rotorcraft Flight Manual is not approved, the procedures and information must be furnished in any combination of approved manual material, markings, and placards.

(1) For transport category large airplanes and jet airplanes, the noise level information must be one value for each flyover, lateral, and approach as defined and required by appendix B of this part, along with the maximum takeoff weight, maximum landing weight, and configuration.

(2) For propeller driven small airplanes, the noise level information must be one value for takeoff as defined and required by appendix G of this part, along with the maximum takeoff weight and configuration.

(3) For rotorcraft, the noise level information must be one value for each takeoff, flyover, and approach as defined and required by appendix H of this part, or one value for flyover as defined and required by appendix J of this part, at the maximum takeoff weight and configuration.

(b) If supplemental operational noise level information is included in the approved portion of the Airplane Flight Manual, it must be segregated, identified as information in addition to the certificated noise levels, and clearly distinguished from the information required under § 36.1581(a).

(c) The following statement must be furnished near the listed noise levels:

No determination has been made by the Federal Aviation Administration that the noise levels of this aircraft are or should be acceptable or unacceptable for operation at, into, or out of, any airport.

(d) For transport category large airplanes and jet airplanes, for which the weight used in meeting the takeoff or landing noise requirements of this part is less than the maximum weight established under the applicable airworthiness requirements, those lesser weights must be furnished, as operating limitations in the operating limitations section of the Airplane Flight Manual. Further, the maximum takeoff weight must not exceed the takeoff weight that is most critical from a takeoff noise standpoint.

(e) For propeller driven small airplanes and for propeller-driven, commuter category airplanes for which the weight used in meeting the flyover noise requirements of this part is less than the maximum weight by an amount exceeding the amount of fuel needed to conduct the test, that lesser weight must be furnished, as an operating limitation, in the operating limitations section of an approved Airplane Flight Manual, in approved manual material, or on an approved placard.

(f) For primary, normal, transport, and restricted category helicopters, if the weight used in meeting the takeoff, flyover, or approach noise requirements of appendix H of this part, or the weight used in meeting the flyover noise requirement of appendix J of this part, is less than the certificated maximum takeoff weight established under

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either § 27.25(a) or § 29.25(a) of this chapter, that lesser weight must be furnished as an operating limitation in the operating limitations section of the Rotorcraft Flight Manual, in FAA-approved manual material, or on an FAA-approved placard.

(g) Except as provided in paragraphs (d), (e), and (f) of this section, no operating limitations are furnished under this part.

[Doc. 13243, 40 FR 1035, Jan. 6, 1975]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 36.1581, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

### § 36.1583 Noncomplying agricultural and fire fighting airplanes.

(a) This section applies to propeller-driven, small airplanes that—

(1) Are designed for “agricultural aircraft operations” (as defined in § 137.3 of this chapter, effective on January 1, 1966) or for dispensing fire fighting materials; and

(2) Have not been shown to comply with the noise levels prescribed under appendix F of this part—

(i) For which application is made for the original issue of a standard airworthiness certificate and that do not have any flight time before January 1, 1980; or

(ii) For which application is made for an acoustical change approval, for airplanes which have a standard airworthiness certificate after the change in the type design, and that do not have any flight time in the changed configuration before January 1, 1980.

(b) For airplanes covered by this section an operating limitation reading as follows must be furnished in the manner prescribed in § 36.1581:

Noise abatement: This airplane has not been shown to comply with the noise limits in FAR Part 36 and must be operated in accordance with the noise operating limitation prescribed under FAR § 91.815.

[Amdt. 36–11, 45 FR 67066, Oct. 9, 1980. Redesignated by Amdt. 36–14, 53 FR 3540, Feb. 5, 1988; Amdt. 36–18, 54 FR 34330, Aug. 18, 1989]

### APPENDIX A TO PART 36—AIRCRAFT NOISE MEASUREMENT AND EVALUATION UNDER § 36.101

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#### A36.1 Introduction.

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#### A36.3 Measurement of Airplane Noise Received on the Ground.

#### A36.4 Calculations of Effective Perceived Noise Level From Measured Data.

#### A36.5 Reporting of Data to the FAA.

#### A36.6 Nomenclature: Symbols and Units.

#### A36.7 Sound Attenuation in Air.

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#### A36.9 Adjustment of Airplane Flight Test Results.

#### Section A36.1 Introduction

A36.1.1 This appendix prescribes the conditions under which airplane noise certification tests must be conducted and states the measurement procedures that must be used to measure airplane noise. The procedures that must be used to determine the noise evaluation quantity designated as effective perceived noise level, EPNL, under §§ 36.101 and 36.803 are also stated.

A36.1.2 The instructions and procedures given are intended to ensure uniformity during compliance tests and to permit comparison between tests of various types of airplanes conducted in various geographical locations.

A36.1.3 A complete list of symbols and units, the mathematical formulation of perceived noisiness, a procedure for determining atmospheric attenuation of sound, and detailed procedures for correcting noise levels from non-reference to reference conditions are included in this appendix.

A36.1.4 For Stage 4 airplanes, an acceptable alternate for noise measurement and evaluation is Appendix 2 to the International Civil Aviation Organization (ICAO) Annex 16, Environmental Protection, Volume I, Aircraft Noise, Third Edition, July 1993, Amendment 7, effective March 21, 2002. [Incorporated by reference, see § 36.6].

#### Section A36.2 Noise Certification Test and Measurement Conditions

##### A36.2.1 General.

A36.2.1.1 This section prescribes the conditions under which noise certification must be conducted and the measurement procedures that must be used.

NOTE: Many noise certifications involve only minor changes to the airplane type design. The resulting changes in noise can often be established reliably without resorting to a complete test as outlined in this appendix. For this reason, the FAA permits the use of approved equivalent procedures. There are also equivalent procedures that may be used in full certification tests, in the interest of reducing costs and providing reliable results. Guidance material on the use of equivalent procedures in the noise certification of subsonic jet and propeller-driven